

Title (en)

Method and apparatus for measuring degree of corrosion of metal materials.

Title (de)

Verfahren und Vorrichtung zum Messen des Korrosionsgrades metallischer Stoffe.

Title (fr)

Appareil et procédé de mesure de la corrosion des matériaux métalliques.

Publication

**EP 0591802 A2 19940413 (EN)**

Application

**EP 93115546 A 19930927**

Priority

JP 25866092 A 19920928

Abstract (en)

A corrosion degree measuring method capable of field measurement for intergranular corrosion, particularly the sensitization degree, of the plant's structural materials in a narrow space. The metal electrode (24) made of a material being measured and the counter electrode (17) to the metal electrode are immersed in an electrolytic solution. A voltage is applied to the metal electrode (24) in the anodic direction so as to raise the potential of the metal electrode (24) up to the passive state potential and to keep the metal electrode (24) at the passive state potential. The passive state potential is used as a reference potential, and a pulse-like potential signal is applied to the metal electrode in the cathodic direction. At the time of the application of the pulse potential signal, a current between the metal electrode (24) and the counter electrode (17) is measured, and the corrosion degree of the material being measured is determined from the intensity of the current. <IMAGE>

IPC 1-7

**G01N 17/02**

IPC 8 full level

**G01N 17/02** (2006.01)

CPC (source: EP US)

**B82Y 15/00** (2013.01 - EP US); **G01N 17/02** (2013.01 - EP US); **Y10S 977/852** (2013.01 - EP US)

Cited by

US5820746A; CN102590071A; EP0760473A1; CN104048910A; US2021010926A1; US11519844B2; CN106290140A; US11378511B2; US8888976B2; US8723535B2; WO2010078548A1; WO2015022571A1; WO2010078547A1; WO2004029590A1; WO0169198A3

Designated contracting state (EPC)

DE FR GB SE

DOCDB simple family (publication)

**EP 0591802 A2 19940413**; **EP 0591802 A3 19940608**; US 5519330 A 19960521

DOCDB simple family (application)

**EP 93115546 A 19930927**; US 12676893 A 19930927